

**In the Specification:**

Please delete the present specification and insert the new specification that is enclosed on the substitute specification.

**REMARKS**

The following are applicant's response to issues raised in the Office Action.

**Specification Objections:**

The specification was objected to because a less than complete description of the plant was presented. Accordingly, the specification has been amended along the lines of the examiner's suggestions to more clearly and completely describe the plant. It is respectfully requested that the specification objections be withdrawn.

**Rejection under 35 U.S.C. 112:**

The claim was rejected under 35 USC 112 as not being supported by a clear botanical description. Accordingly, the botanical description has been amended to more clearly describe the plant. It is respectfully requested that the 112 rejection be withdrawn.

**Request for information under 37 CFR 1.105:**

In response to the request for information under 37 CFR 1.105, applicants submit the enclosed documents providing the following requested information:

- A. CPVO Plant Breeders Right Grant
- B. CPVO Plant Breeders Right Application
- C. CPVO Plant Breeders Right Proposed Denomination

The first sale date of 'Charam' anywhere in the world was April 1, 1998 in the United Kingdom.

**Conclusion:**

The Examiner's attention to the patent application is appreciated. A version of the substitute specification is attached showing the changes that were made in the amendment.

The claimed plant is now believed to be in condition for allowance.

Respectfully submitted,

Mark P. Bourgeois  
Reg. No. 37,782

## BOTANICAL DESCRIPTION OF THE PLANT

The following is a detailed botanical description of the new *Euphorbia* cultivar 'Charam'. Observations, measurements, values and comparisons have been collected in spring in Arroyo Grande, California from plants that were 12 months and grown outdoors in two-gallon containers. Color determinations are made in accordance with the Royal Horticultural Society Colour Chart from London England, except where general color terms of ordinary dictionary significance are used. The growing requirements of the new variety are similar to the species and there are no known growing problems, diseases or pests.

10 Botanical classification: *Euphorbia* 'Charam'.

Common name: Spurge.

Parentage: *Euphorbia* 'Charam' is a natural seedling that resulted from the spontaneous hybridization of the following parents:

15 Female parent: *Euphorbia characias* sub sp.*wulfenii* 'Purple and Gold'.

Male parent: *Euphorbia martinii*.

Propagation method: Terminal stem cuttings.

Rooting habit: Fibrous rooting habit.

Time to develop roots: In California 2-3 weeks are required for roots to develop on an

20 initial cutting.

Crop time: In California 6-8 months are required to develop a finished one-gallon container from a rooted cutting.

Growth habit: Upright, compact and clumping growth habit.

Use: Ornamental landscape plant.

25 Type: Perennial herb.

Vigor: Vigorous.

Height of plant: 50-70 cm. in height.

Width of plant: 50-70 cm. in width.

Sexuality: 'Charam' is assumed to be monoecious with rudimentary stamens that mature 30 after the female parts.

Cultural requirements: Plant in full sun and well-drained soil.

Hardiness: Hardy to minus 12 degrees Centigrade.

Disease/Insect Resistance: Resistant to powdery mildew and can be affected by Aphids and Pithium spp.

5 Drought Tolerance: Tolerates low amounts of rainfall.

Stem:

Branching habit: Upright.

Trunk dimensions: 2 cm. in diameter and 3 cm. from soil level to first branching.

Stem color: Mostly 144A with streaks of 59A.

10 Stem shape: Cylindrical to columnar.

Stem width: .75 cm. in diameter.

Stem length: 30 cm. in length.

Internode length: .50 cm. between nodes.

15 Stem surface: Mostly smooth with some pubescence. Basal surface to mid-stem is heavily covered with bundle scars. Some terminal stem surfaces are rugose.

Bundle scars: Present on stem surface.

Shape of bundle scars: Linear shaped.

Dimensions of bundle scars: 3mm. in length and 1 mm. in width.

Color of bundle scars: 199D.

20 Quantity of bundle scars: Numerous amounting to approximately 42 on a 20 cm. long stem.

Stem texture: Fleshy and flexible.

Color of pubescence: 198D.

25 Other: Plant parts exude a white milky sap that can be toxic and can elicit dermal irritation.

Foliation:

Type: Evergreen.

Leaf arrangement: Whorled.

Leaf division: Simple.

30 Leaf shape: Oblanceolate to spatulate.

Mature leaf length: 9 cm. in length.  
Mature leaf width: 1 cm. in width.  
Young leaf length: 2.5 cm. in length.  
Young leaf width: .75 cm. in width.  
5 Internode length: 1 cm. between nodes.  
Leaf apex: Acuminate.  
Leaf base: Truncate.  
Quantity of leaves: Numerous amounting to approximately 25 leaves on a 7 cm. long stem.  
10 Leaf venation pattern: Pinnate pattern with a barely visible mid-vein on the adaxial surface and a prominent protruding mid-vein on the abaxial surface.  
Vein color (adaxial surface): 138B.  
Vein color (abaxial surface): 59A.  
Margin: Entire.  
15 Leaf surface (abaxial surface): Pubescent.  
Leaf surface (adaxial surface): Sparsely puberulent.  
Color of pubescence: 198D.  
Leaf attachment: Sessile.  
Mature leaf color (adaxial surface): 137A.  
20 Mature leaf color (abaxial surface): 138A.  
Young leaf color (adaxial surface): Mostly 137C and tinged with 59A at margins.  
Young leaf color (abaxial surface): Mostly 137D and tinged with 59A towards the apex.  
Flower:  
25 Inflorescence: Terminal cyme.  
Dimensions of inflorescence: 7 cm. in length and 4 cm. in width.  
Flowering season: Late winter until late spring.  
Peduncle dimensions: 15 cm in length and 2 mm. in width.  
Peduncle color: Mostly 144A with tinge of 59A.  
30 Peduncle surface: Sparsely puberulent.

Color of pubescence: 198D.

Petals: Apetalous.

Sepals: Asepalous.

Floral leaf attachment: Connate perfoliate.

Dimensions of floral leaves: 12 mm. in length and 2 cm. in width.

Shape of floral leaf: Closest to reniform.

Color of floral leaf: 144B with streaks of 151B.

Number of floral leaves: Two in number.

Fused or unfused: Basally fused.

10 Internode length: 5-6 cm. between nodes.

Number of cyathium: Two cupped within the center of two basally fused floral leaves.

Shape of cyathium: Cupulate.

Number of floral leaves on each cyathium: Two.

15 Fused or unfused: Basally fused.

Shape of floral leaves on cyathia: Closest to reniform.

Color of cyathium: 144C.

Dimensions of cyathium: 5 mm. in length and 6 mm. in width.

Nectary: Four flattened glands on four fused bracts.

20 Shape of nectary: Flattened crescent shaped glands with two horns.

Dimensions of nectary: 6 mm. in height and 6 mm. in diameter.

Color of mature nectary: 161A.

Color of young nectary: 144A.

Position of nectaries: One green nectary in the center of each cyathium and one yellow nectary axillary to the floral leaf and basal to each pair of cyathia.

25 Reproductive organs:

Stamens: Six rudimentary stamens that are visible with a lens after the female parts have matured.

Stamen color: 200A.

30 Stamen dimensions: Less than .25 mm. in length and less than .25 mm. in

diameter.

Anther shape: Oval to round.

Anther color: 200A.

Ovary dimensions: 1.5 mm. in width and 1.5 mm. in length.

5 Shape of ovary: Globose.

Position of ovary: Superior.

Color of ovary: 144A.

Pollen: Absent.

Pistil: One in number.

10 Color of pistil: 144A.

Dimensions of pistil: 7 mm. length and less than 1 mm. in width.

Style: Three in number:

Style shape: Bifid:

Style color: 144A.

15 Style dimensions: Less than 1 mm. in width and 1 mm. in height.

Stigma: Six in number.

Stigma color: 144A

Dimensions of Stigma: Less than .75 mm. in width and less than .75 mm. in height.

20 Seed:

Seed has not been observed.

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## CLAIM

A new and distinct cultivar of *Euphorbia* plant named 'Charam' as described and illustrated.

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## ABSTRACT

A new cultivar of *Euphorbia* named 'Charam' that is distinguished by a compact  
5 clumping growth habit, terminal cymes that turn increasingly red in late winter, then open  
into yellow-green floral heads that completely cover the plant from March through May.  
In combination with its hardiness and a long period of garden interest, these traits set  
'Charam' apart from all other existing varieties of *Euphorbia* known to the inventor.



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Part # 3

Marked 44

EUPHORBIA PLANT NAMED 'CHARAM'

Botanical Classification: Euphorbia

Variety Denomination: 'Charam'

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### BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Euphorbia*,  
10 a hardy perennial that is grown for use as an ornamental landscape plant. The new invention will be referred to hereinafter by the cultivar name 'Charam'.

'Charam' was discovered by the inventor in 1992 in Bury St. Edmunds, England as a hybrid seedling that occurred as the result of a natural cross between the female parent *Euphorbia characias* sub sp. *wulfenii* 'Purple and Gold' (not patented) and the 15 male parent *Euphorbia martinii* (not patented) 'Charam' is unique and was selected for its compact clumping growth habit, length of garden interest, and terminal cymes that turn increasingly red in late winter, then open to yellow and green in spring forming a 'hummock' completely covered by flower color. The flowers are held on terminal stems and born axial to the leaf joints with two cyathia cupped by two basally fused floral leaves, 20 also called involucres.

The closest comparison plants are *Euphorbia characias* 'Humpty Dumpty' (not patented) and *Euphorbia ×martinii* 'Red Dwarf' (not patented). 'Charam' is distinguishable from both plants by its full floral heads as well as its yellow-green nectary and ovary. The Euphorbias of this group are considered monoecious. In most Euphorbias 25 the stamens mature after the female parts of the flower. However thus far the inventor has not observed stamens and suspects 'Charam' to be monoecious with rudimentary stamens that may not be visible to the naked eye.

The first asexual reproduction of 'Charam' was accomplished by the inventor using the method of cuttings and was carried out in Bury St. Edmunds, England in 1992.  
30 Since that time subsequent generations have been determined stable and true to type.

## SUMMARY OF THE INVENTION

The following traits have been repeatedly observed and represent the 5 distinguishing characteristics of 'Charam'. These traits in combination distinguish 'Charam' from all other existing varieties of *Euphorbia*. 'Charam' has not been tested under all possible conditions and phenotypic differences may be observed with variations in environmental, climatic, and cultural conditions, however, without any variance in genotype.

- 10 1. *Euphorbia* 'Charam' exhibits a compact clumping growth habit.
2. *Euphorbia* 'Charam' exhibits terminal cymes that turn increasingly red in late winter, then open to yellow-green from March through May.
3. *Euphorbia* 'Charam' is evergreen and offers a long period of garden interest.
4. *Euphorbia* 'Charam' is a complete 'hummock' of flower color when in full 15 bloom.
5. *Euphorbia* 'Charam' is hardy to minus 12° Centigrade.
6. *Euphorbia* 'Charam' is 70 cm. in height and 70 cm. in width at maturity.

## BRIEF DESCRIPTION OF THE DRAWINGS

20 The accompanying photographs illustrate the distinguishing traits of the new cultivar 'Charam'. The photographs were taken in spring using plants that were 12 months and grown outdoors in two-gallon containers. The photograph on sheet 1 is taken from a side perspective and illustrates the lower leaves as well as the blooms. The 25 photograph on sheet 2 is a close-up of the inflorescence. The photograph on sheet 3 shows 'Charam' in full bloom (the larger plant) planted in the ground with three different small plants in the foreground. The photographs were made using conventional photographic techniques and although flower and foliage colors in the photographs may appear different from actual colors due to light reflectance, they are as accurate as possible 30 by conventional photography.

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## CERTIFICATE ON THE GRANT OF COMMUNITY PLANT VARIETY RIGHTS

THE COMMUNITY PLANT VARIETY OFFICE HEREBY ACKNOWLEDGES THE GRANT OF COMMUNITY PLANT VARIETY RIGHT BY ITS DECISION N° EU4713 OF 21 JUNE 1999 TAKEN IN ACCORDANCE WITH COUNCIL REGULATION (EC) N° 2100/94 ON COMMUNITY PLANT VARIETY RIGHTS, WITH EFFECT FROM THE DATE OF THE DECISION REFERRED TO ABOVE, FOR

NOTCUTTS NURSERIES  
WOODBRIDGE  
UK - IP12 4AF SUFFOLK

AS HOLDER OF THIS RIGHT,

REPRESENTED BY

**D.N. CLARK**  
Notcutts Nurseries

BEING DOMICILED OR HAVING HIS SEAT OR ESTABLISHMENT IN

**WOODBRIDGE**  
UK – SUFFOLK IP12 4AF

IN RESPECT OF THE VARIETY OF *Euphorbia L.* BEARING THE DESIGNATED DENOMINATION

**CHARAM**

FOR A PERIOD EXPIRING ON 31/12/2024 AT THE LATEST.

THE COMMUNITY PLANT VARIETY RIGHT HAS UNIFORM EFFECT WITHIN THE TERRITORY OF THE EUROPEAN COMMUNITY AND MAY NOT BE TRANSFERRED IN RESPECT OF THIS TERRITORY OTHERWISE THAN ON SUCH UNIFORM BASIS. IT CAN BE EXERCISED AND ENJOYED BY THE HOLDER IN ACCORDANCE WITH COUNCIL REGULATION N° 2100/94 ON COMMUNITY PLANT VARIETY RIGHTS.

THIS ACKNOWLEDGEMENT DOES NOT AFFECT THE REQUIREMENT OF THE HOLDER TO PAY THE FEES DUE FOR EACH YEAR OF DURATION OF THE COMMUNITY PLANT VARIETY RIGHT.





EUROPEAN UNION  
Community Plant Variety Office

**DECISION**  
**(No: 4713)**

The competent Committee for determining applications for the grant of Community Plant Variety Rights has decided, pursuant to article 62 of Council Regulation (EC) No 2100/94 (the Regulation), to grant such a right in relation to -

the variety: CHARAM (Application number: 98/1193)  
of species: *Euphorbia L.*  
to:  
(Applicant) NOTCUTTS NURSERIES  
WOODBRIDGE  
UK- IP12 4AF SUFFOLK  
Date: 21 JUNE 1999

In connection with the grant of this Community Plant Variety Right the Committee has approved, pursuant to article 63 of the Regulation, the variety denomination -

CHARAM

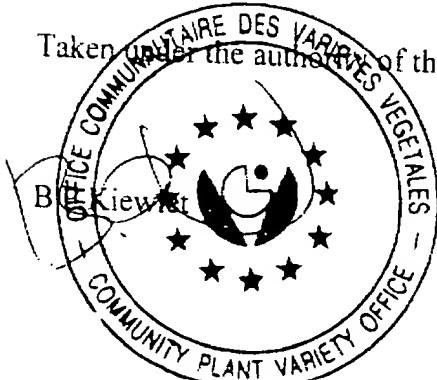
Signed:

Dirk Theobald

Iain Forsyth

José Elena

Taken under the authority of the President of the Office,





EUROPEAN UNION

COMMUNITY PLANT VARIETY OFFICE

**PROPOSAL FOR A VARIETY DENOMINATION**

Date of receipt  
(for Office use only)

1. Applicant: name and address:

Notcutts Nurseries  
Woodbridge  
Suffolk.  
IP12 4AF

2. Provisional designation of the variety (breeder's reference):

N/A

3. Botanical taxon: Latin name of the genus, species or sub-species to which the variety belongs and common name:

Euphorbia

4. File no., if already known:

Not known

5. Proposal for a variety denomination:

Euphorbia (Charam)

6. If any, the preceding proposal for a variety denomination made to the Office:

None

7. Denominations proposed for entry or entered in an official register in a Member State of the EU or in a Member of UPOV

Filing State	Stage	Denomination (if different from 5 above)
N/a		

8.  The proposed denomination has been filed by or registered for the applicant (s) as a trademark in the EU or in a Member of UPOV or with the International Bureau of the World Intellectual Property Organization (WIPO) in respect of products that are identical or similar within the meaning of trademark law.

State and/ or WIPO	Date of applica- tion	Date of registration	Registration number
N/a			

I/We hereby declare that, to the best of my/our knowledge, the above information given in this form is complete and correct.

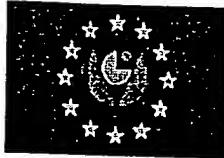
Notcutts Nurseries, Woodbridge

Suffolk. IP12 4AF

(Place)

28th August, 1998

(Date)



European Union  
Community Plant Variety Office

**APPLICATION FOR COMMUNITY PLANT VARIETY RIGHT  
TO THE COMMUNITY PLANT VARIETY OFFICE**

For use of National Agency only, if necessary

Via National Agency: .....  
File No: .....

For Office's use only

Date of application: .....  
Priority date: .....  
File number of application : .....  
Payment of the Application Fee : .....  
received on : .....

Office use

**1. Applicant (s) :**      **Name (s) :** Notcutts Nurseries, Woodbridge  
 Suffolk. IP12 4AF  
 Telephone : 01394 383344      Fax : 01394 445440

If natural person, indicate nationality and address :

If legal person, firm or company indicate the address of its seat or establishment :  
 Woodbridge      Suffolk.  
 IP12 4AF

Indicate name and address of the natural person being the legal representative of the legal person, firm or company:

D. N. Clark      Notcutts Nurseries      Woodbridge  
 Suffolk.      IP12 4AF

Telephone : 01394 383344      Fax : 01394 445440

**2. If a procedural representative has been designated, please indicate his name and address and file the relevant signed credentials:**

(For applicants not having a domicile, seat or establishment within the territory of the European Union, a procedural representative with a domicile, seat or establishment therein is required)

D. N. Clark      Notcutts Nurseries      Woodbridge  
 Suffolk.      IP12 4AF

Telephone : 01394 383344      Fax : 01394 445440

**3. Address to which correspondence is to be sent if different from 1 or 2.**

N/a

Telephone :      Fax :

Office use

5. a) Where appropriate, proposal for the variety denomination (in BLOCK LETTERS):

CHARAM

b) In any case, provisional designation (breeder's reference) for the variety (in BLOCK LETTERS):

REDWING

6. The original breeder (s) is (are)

the applicant (s)

the following person (s)

Name (s) and address (es):

Mr. Bernard Tickner, Fullers Mill, West Stow, Bury St. Edmunds  
Ipswich Suffolk. IP28 6HD

Telephone :

Fax :

If the original breeder is not the applicant, how was the variety transferred to the applicant (s):

- Contract
- Succession
- Other (specify) Assignment of Rights

Please provide relevant documentary evidence.

Office use

**7. Details of all other applications** made in a Member State of the EU or in a Member of the International Union for the Protection of New Varieties of Plants (UPOV):

G.B.      AFP 30/204      Euphorbia Redwing (Charam)

( If necessary, continue on a separate sheet )

**8. Priority is now claimed** in respect of the earliest application for a property right filed:

in (country)      G.B. ....  
on (date of application)      25.11.97 .....

**9. a) Has the variety been sold or otherwise exploited?**

- Within the territory of the European Union Yes  No  
If yes, please indicate date and country of the first disposal of the variety and the designation used

..... April 1st 1998 ..... G.B. .... Euphorbia Redwing (Charam) .....

- Outside the territory of the European Union Yes  No  
If yes, please indicate date and country of the first disposal of the variety and the designation used

.....  
b) In the case of a variety which is repeatedly used in the production of one or more hybrid varieties, please indicate for each hybrid the same information as requested in a)  
..... N/a .....

c) Has the variety been disposed of under other circumstances than those mentioned  
.....

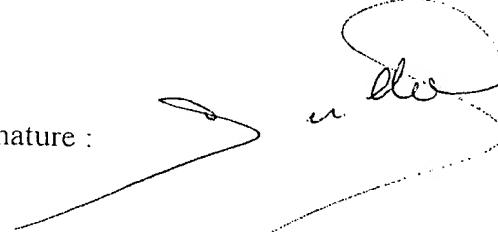
		Office use
<p>10. A technical examination for official purposes</p> <p><input checked="" type="checkbox"/> has already been carried out</p> <p><input type="checkbox"/> is in the process of being carried out</p> <p>in ..... Plant Variety Rights Office ..... Cambridge .....</p>		
<p>11. The variety represents a <b>Genetically Modified Organism</b> within the meaning of Article 2 (2) of the Council Directive EEC 90/220 of 23.04.90?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>		
<p>12. In case of a Community plant variety right granted, the certificate should be issued in the following official languages of the EU:</p> <p>..... English .....</p>		
<p><b>Application Fee:</b> Has the payment of the Application Fee already been arranged:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Please fill out and attach the form "details of payment".</p>		
<p>The following forms or documents are attached to this application:</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9</p> <p>The technical questionnaire and the credentials of any procedural representative form part of the application.</p>		

Office use

- ⇒ - I (We) hereby apply for the grant of the Community plant variety right.
- ⇒ - Authorization is hereby given to the Community Plant Variety Office to exchange with the Examination Offices and other competent authorities all necessary information and material related to the variety provided that the rights of the applicant are safeguarded.
- ⇒ - I (We) hereby declare that, to the best of my (our) knowledge, the information necessary for the examination of the application, given in this form and the annexes is complete and correct.
- ⇒ - I (We) hereby declare that no further person or persons than that or those mentioned in this application has been involved in the breeding, or discovery and development of the variety.

Place: Notcutts Nurseries  
Woodbridge ..... Date: 28.8.98  
Suffolk.  
IP12 4AF

Signature :

A handwritten signature in black ink, which appears to read "Notcutts Nurseries", is written over a stylized, swooping line that starts from the "Signature:" label and extends towards the right.